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June 8, 2022

BY HAND DELIVERY & ELECTRONIC MAIL

Luly e. Massaro, Commission Clerk Rhode Island Public Utilities Commission 89 Jefferson Boulevard Warwick, RI 02888

RE: Docket No. 5201- Long-Term Contracting for Renewable Energy Recovery Factor

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a Rhode Island Energy ("Rhode Island Energy" or the "Company"), enclosed pleased find the Company's responses to the First Set of Data Requests issued by the Public Utilities Commission in the above-referenced matter.

Thank you for your attention to this filing. If you have any questions, please contact me at 401-709-3337.

Sincerely,

Laticia Pimentel

Leticia C. Pimentel

Enclosures

cc: Leo Wold, Esq. John Bell, Division Service List

Boston | Hartford | New York | Providence | Miami | Stamford | Los Angeles | Wilmington | Philadelphia | Albany | New London | rc.com

Docket No. 5201 – National Grid – LTC Recovery Factor Service List updated 6/8/2022

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<u>PUC 1-1</u>

Request:

Please explain from where the Company derives the Unit Factor for each contract. If it is developed by the Company (as opposed to being supplied to the Company), please clarify how it is calculated and whether or not it gets updated over the course of the contract to reflect operational changes.

Response:

The Unit Factor percentage is typically calculated with the prior 12 months of generation (April 2021 through March 2022 for this filing); however, on occasion the Unit Factor is estimated from other sources.

There are 26 solar units with executed contracts pursuant to the Distributed Generation Standard Contracts Act (DGSC). The Company aggregates all generation from the 26 solar units and calculates one Unit Factor to estimate the output over a Pricing Period.

Except for the executed contracts pursuant to the DGSC which utilize one Unit Factor for aggregated generation, the Unit Factor percentage for all other Units is typically based on their specific historical generation. One exception is when there is not a full year of historical generation, in which case the Company would estimate the Unit Factor in some other way. The Unit Factors in this filing for Cassadaga Wind (Commercial Operation Date ("COD") July 20, 2021), Farmington Solar (COD October 27, 2021) and Quinebaug Solar (COD December 28, 2021) are instances when 12 months of generation from COD were not available at the time of the filing. For these Units, the Company utilized the Unit Factor of similar contracts as a proxy.

Another exception is when the historical generation is not indicative of a future Pricing Period. In the past, Orbit Energy had not consistently generated, and the Company utilized a generation forecast provided by the Unit to estimate the Unit Factor for a future Pricing Period. For this filing, Orbit Energy's Unit Factor was calculated with actual generation. Another example is Deepwater Wind which had increased maintenance in 2021. The Company did not expect the Unit's performance in 2021 to be indicative of the future and therefore used estimated generation for the calculation of the Unit Factor included in this filing.

<u>PUC 1-2</u>

Request:

For all 38 contracts (in the same order as they appear in Attachment 1, page 2-5), please provide a table with the following information:

- a) Estimated 6-month output (MWh) for the period of July December 2019
- b) Actual 6-month output (MWh) for the period of July December 2019
- c) Estimated 6-month output (MWh) for the period of July December 2020
- d) Actual 6-month output (MWh) for the period of July December 2020
- e) Estimated 6-month output (MWh) for the period of July December 2021
- f) Actual 6-month output (MWh) for the period of July December 2021

Response:

Please see Attachment PUC 1-2 for the requested information.

Long-Term Contracting for Renewable Energy Recovery (LTCRER) Estimated and Actual 6-Month Output

		July 2019 - December 2019		July 2020 - Dec	cember 2020	July 2021 - December 2021	
		Estimated Six-Month	Actual Six-Month	Estimated Six-Month	Actual Six-Month	Estimated Six-Month	Actual Six-Month
	11.5						
	Unit	Output (MWh)	Output (MWh)	Output (MWh)	Output (MWh)	Output (MWh)	Output (MWh)
		(a)	(b)	(c)	(d)	(e)	(f)
(1)	RI LFG Genco Asset No. 40054	104,043	111,111	109,666	99,460	97,013	113,459
(2)	Wind Energy Dev. NK Green LLC Asset No. 42394	1,183	1,018	1,380	1,180	1,314	1,060
(3)	Con Edison Development Plain Mtg House Asset No. 43512	1,139	1,283	1,139	1,287	1,139	1,215
(4)	ACP Land LLC 28 Jacome Way Asset No. 43527	285	317	285	308	285	270
(5)	Comtram Cable Asset No. 43586	284	307	284	289	284	272
(6)	CCI New England 500 kW Asset No. 43607	284	333	284	321	284	294
(7)	Conanicut Marine Services (CMS) Solar Asset No. 43685	73	54	73	63	73	58
(8)	Black Bear Orono B Hydro Asset No. 68728	9,882	13,410	13,002	7,627	8,148	7,998
(9)	West Davisville Solar Asset No. 43716	1,332	1,458	1,332	1,361	1,332	1,202
(10)	Forbes Street Solar Asset No. 43762	2,112	1,931	2,112	2,093	2,112	1,813
(11)	CCI New England 181 kW Asset No. 43921	103	106	103	97	103	61
(12)	100 Dupont Solar Asset No. 44003	854	868	854	712	854	734
(13)	225 Dupont Solar Asset No. 44004	171	175	171	124	171	132
(14)	35 Martin Solar Asset No. 44006	285	301	285	234	285	259
(15)	0 Martin Solar Asset No. 44005	285	303	285	292	285	282
(16)	Gannon & Scott Solar Asset No. 44010	231	150	231	197	231	199
(17)	All American Foods Solar Asset. No. 46721	188	199	188	178	188	109
(18)	Brickle Group Solar Project Asset. No. 46911	617	706	617	691	617	678
(19)	T.E.A.M. Inc. Solar Asset. No. 46913	104	101	104	89	104	93
(20)	Newport Vineyards Solar Asset. No. 46917	30	30	30	32	30	29
(21)	SER Solar 23 Appian Way Asset. No. 46926	30	27	30	21	30	25
(22)	Nexamp 76 Stilson Rd. Asset. No. 47020	284	329	284	313	284	298
(23)	Randall Steere Farm Asset. No. 46998	52	54	52	56	52	48
(24)	Johnston Solar Asset No. 47357	968	893	968	862	968	771
(25)	North Kingstown Solar 1720 Davisville Rd Asset No. 47487	285	308	285	299	285	296
(26)	Wilco 260 South County Trail - Asset No. 48664	709	628	709	668	709	672
(27)	Foster Solar - Asset No. 48774	712	812	712	767	712	731
(28)	Brookside Equestrian Center No. 48899	709	699	709	751	709	618
(29)	Deepwater Wind Asset No. 38495	57,816	53,414	60,444	54,018	57,816	25,943
(30)	Orbit Energy Asset No. 50057	-	1	-	321	841	1,844
(31)	Frenchtown Road Solar - Asset No. 50731	712	700	712	653	712	579
(32)	Copenhagen Wind Farm	104,989	114,084	122,487	132,264	122,487	97,930
(33)	Woods Hill Solar Asset No. 49370	854	930	1,051	1,113	1,117	900
(34)	Hope Farm Solar Asset No. 49029	-	1,186	3,504	3,930	4,161	3,709
(35)	Sanford Airport Solar Asset No. 68737	-	-	-	452	3,243	3,061
(36)	Cassadaga Ŵind	-	-	-	-	28,744	11,555
(37)	Farmington Solar	-	-	-	-	-	526
(38)	Quinebaug Solar	<u> </u>			-		14
(39)	Total	291,602	308,228	324,371	313,124	337,720	279,736

(a) Per R.I.P.U.C. Docket No. 4899, May 2019 Filing, Attachment 1 Revised, Page 2, Column (d)

(b) Per ISO-NE settlement reports

(c) Per R.I.P.U.C. Docket No. 4992, May 2020 Filing, Attachment 1, Page 2, Column (d)

(d) Per ISO-NE settlement reports
(e) Per R.I.P.U.C. Docket No. 5085, May 2021 Filing, Attachment 1, Page 2, Column (d)

(f) Per ISO-NE settlement reports

<u>PUC 1-3</u>

Request:

Referencing the Market Energy Proxy column on Page 3 of Attachment 1, please explain the following:

- a) How did the Company develop the Market Energy Proxy for each contract? Explain the methodology and data inputs.
- b) All of the contracts that feature the \$106.44/MWh Market Energy Proxy value appear to be solar PV facilities. Please confirm whether this is true.
- c) The five contracts with the highest Market Energy Proxy values appear to be wind or hydro facilities. Please confirm whether this is true.
- d) For the period of July December 2021, the Company developed Market Energy Proxy values for each of the contracts that ranged from \$35.44/MWh to \$39.85/MWh (Docket No. 5085). This range reflects a 12% difference between the highest and lowest Market Energy Proxy values. In the current filing (for the period of July December 2022), the Company developed Market Energy Proxy values that range from \$106.44/MWh to \$121.33/MWh. This range reflects a 14% difference between the highest and lowest lowest Market Energy Proxy values. Recognizing the historic relationship between winter and summer energy prices and the unique circumstances influencing winter energy prices for the winter of 2022/2023, please explain why the percentage difference between the highest and lowest Market Energy Proxy values is almost the same for the period of July December 2022 as it was for the period of July December 2021.

Response:

a) Please see Attachment PUC 1-3, which is a working Excel version of the calculation of the Market Energy Proxies used in the Company's May 13, 2022 filing.

Attachment 1, page 3 of 6, includes a Market Energy Proxy for the different classes of renewable generation. The Market Energy Proxy calculations for each energy class resides on the Energy Proxy tab in Attachment PUC 1-3. The Market Energy Proxy is based on peak and off peak electricity futures prices as of April 27, 2022 for the Pricing Period. It is also based on each energy class's monthly, peak, and off peak expected generation. The hourly expected generation data can be found on five tabs:

- LFG Shape Averages
- Hydro Shape Averages
- Solar Shape Averages
- Wind Shape Averages
- Offshore Wind Shape Averages

The hourly expected generation is summed to monthly peak and off peak amounts, from which the Company can derive peak, off peak, and monthly percentages which are applied to the electricity futures prices on the Energy Proxy tab. The hourly expected generation is based on the historical generation for the various projects.

- b) Correct.
- c) Correct.
- d) As described in the response above, the Market Energy Proxy for the different classes of renewable generation is dependent upon each energy class's monthly, peak, and off peak expected generation and the electricity futures prices. To the extent that each energy class's expected generation differs from the other classes, the resultant Market Energy Proxy will differ. In both Pricing Periods, the highest Market Energy Proxy values were for the Hydro class, but the lowest Market Energy Proxy values were for Landfill Gas and Solar classes. The similar percentage differences between the highest and lowest Market Energy Proxy values are the results of the inputs into the calculations which are shown below.

The July – December 2021 lowest and highest Market Energy Proxies were for the Landfill Gas and Hydro classes.

Energy Market Prices						
<u>(\$/MWh)</u>	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	Dec-21
Peak	\$39.00	\$ 36.83	\$ 32.45	\$ 33.02	\$ 45.32	\$ 64.22
Off Peak	\$28.68	\$ 26.83	\$ 22.68	\$ 24.60	\$ 37.40	\$ 52.82
Electric Futures Price	s: ISO N	ew England	Internal Hu	b Peak LMI	P Swap and	ISO New
England Internal Hub	Off-Peak	LMP Swap				
May 6, 2021						
Landfill Gas						
Forecasted Output	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>
Peak	47%	47%	47%	45%	47%	49%
Off Peak	53%	53%	53%	55%	53%	51%
Monthly Weighting	16%	19%	20%	21%	9%	16%
Energy Market Value						
ATC	\$33.51	\$ 31.54	\$ 27.23	\$ 28.38	\$ 41.09	\$ 58.42
Weighted Period Price	\$35.44					
Hydro						
Forecasted Output	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>
Peak	47%	47%	46%	45%	47%	51%
Off Peak	53%	53%	54%	55%	53%	49%
Monthly Weighting	12%	10%	8%	21%	25%	25%
Energy Market Value						
ATC	\$33.57	\$ 31.49	\$ 27.22	\$ 28.42	\$ 41.09	\$ 58.61
Weighted Period Price	\$39.85					
ε						

The July – December 2022 lowest and highest Market Energy Proxies were for the Solar and Hydro classes.

Energy Market Prices						
<u>(\$/MWh)</u>	<u>Jul-22</u>	<u>Aug-22</u>	<u>Sep-22</u>	<u>Oct-22</u>	<u>Nov-22</u>	Dec-22
Peak	\$ 120.50	\$ 113.00	\$ 87.00	\$ 85.50	\$ 127.55	\$ 204.95
Off Peak	\$ 80.00	\$ 80.00	\$ 67.38	\$ 69.75	\$ 105.70	\$ 185.75
Electric Futures Prices	: ISO New	England Inte	ernal Hub P	eak LMP Sv	vap and ISO	New
England Internal Hub	Off-Peak LM	IP Swap				
April 27, 2022						
Solar						
Forecasted Output	<u>Jul-22</u>	<u>Aug-22</u>	<u>Sep-22</u>	<u>Oct-22</u>	<u>Nov-22</u>	<u>Dec-22</u>
Peak	64%	74%	70%	68%	70%	68%
Off Peak	36%	26%	30%	32%	30%	32%
Monthly Weighting	21%	21%	19%	16%	15%	8%
Energy Market Value						
ATC	\$ 105.87	\$ 104.34	\$ 81.09	\$ 80.42	\$ 120.99	\$ 198.76
Weighted Period Price	\$ 106.44					
Hydro						
Forecasted Output	<u>Jul-22</u>	<u>Aug-22</u>	<u>Sep-22</u>	<u>Oct-22</u>	<u>Nov-22</u>	<u>Dec-22</u>
Peak	43%	49%	47%	45%	47%	47%
Off Peak	57%	51%	53%	55%	53%	53%
Monthly Weighting	7%	7%	9%	23%	27%	26%
Energy Market Value						
ATC	\$ 97.61	\$ 96.28	\$ 76.67	\$ 76.89	\$ 115.90	\$ 194.79
Weighted Period Price	\$ 121.33					